



**Directorate of
Intelligence**

~~Secret~~

25X1

The Challenge China Faces: Identifying Resource Constraints on Economic Growth

25X1

An Intelligence Assessment

~~Secret~~

*EA 86-10035
August 1986*

Copy 267

Page Denied



**Directorate of
Intelligence**

Secret

25X1

The Challenge China Faces: Identifying Resource Constraints on Economic Growth

25X1

An Intelligence Assessment

This paper was prepared by China Division, Office of East Asian Analysis. Comments and queries are welcome and may be directed to the Chief, China Division, OEA,

25X1

Reverse Blank

Secret

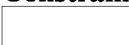
*EA 86-10035
August 1986*

Secret



25X1

**The Challenge China Faces:
Identifying Resource Constraints
on Economic Growth**



25X1

Scope Note

This paper identifies potential constraints to China's economic development and offers a sense of the sweeping challenge Beijing faces. As an inventory of problems lurking in China's future, the paper's tone is necessarily negative. It speculates on how those constraints may slow China's advancement. It does not attempt to measure their precise impact or even predict China's ability to overcome them. More detailed assessments of the constraints, their impact, and China's chances of resolving them will be the subject of future research.



25X1

Secret

25X1

**The Challenge China Faces:
Identifying Resource Constraints
on Economic Growth**

25X1

Key Judgments

*Information available
as of 19 June 1986
was used in this report.*

Although China's reform program has resulted in impressive accomplishments and its goals for quadrupling output between 1980 and 2000 are attainable, we expect significant resource constraints to develop over the next 15 years and to challenge Beijing's ability to achieve qualitative targets. Though typical of the problems with resources, people, and technology absorption that face any developing economy, these challenges may be particularly daunting to China because of its size and its ambitious timetable.

Beijing's plans through the end of the century and beyond will impose competing demands on China's infrastructure, industry, financial resources, social services, management, and education:

- The transportation system is already overburdened, and, even with improvements, it will probably fall far short of needs for domestic distribution of goods. Problems moving freight will inhibit domestic commerce and foreign trade.
- Railroad shortcomings will hinder deliveries of coal—which accounts for more than 70 percent of China's energy—and will hurt China's attempts to increase energy output. Energy shortages idle 30 percent of industry now, and by the end of the century demand could be twice available supplies.
- China lacks the communications systems necessary to support computer networks, industrial interfaces, and education; progress in improving civilian communications will be slow.
- Water supplies are already inadequate for industrial and human needs; water and air pollution go untreated and will worsen, threatening both human health and those industries that require clean supplies for their processes.
- China lacks the business environment—such as laws and legal services, product research, and marketing—as well as the streamlined decision-making and management criteria that would encourage the entrepreneurship and risk taking that help developing economies make rapid strides.

Secret

25X1

- Until the education system can supplement narrow, applications-oriented training with broader programs for planning and managing, improvement in the business environment will be slow and will probably divert technically qualified Chinese from industries where their skills are needed.
- The role of the factory and the party—longstanding institutions in Chinese industry—will have to change to support quality, efficiency, and profits.
- China will face critical challenges in the absorption of technology and labor. Workers must be trained to use modern technologies effectively, and the unemployed and underemployed must be directed to new jobs to avoid a potentially serious social problem.
- Financial needs will be enormous—exceeding \$1 trillion—and China will look to the West to provide low-cost loans, increase direct investment, import more Chinese goods, and use more Chinese services.

In our judgment, although Beijing has acknowledged each of these issues, the leadership has taken little action to forestall the cumulative effects of these shortcomings, and may be forced to pare plans for qualitative improvements in industry and society. Disruptions from these problems will drive national economic policy making. Impatient localities will probably try to improve their economies and services on their own, and this may undermine national plans for integrated energy, transportation, communications, and industrial systems. Interregional tensions stemming from unequal rates of development could become more contentious as the gaps between rich and poor grow. We believe, however, that Beijing will remain committed to its reform program and that it will turn outward for solutions to its problems.

Indeed, China's reforms and development will offer many opportunities for Western industries, academics, lenders, and governments to offer equipment, expertise, money, and advice. US firms have been more willing than others to transfer know-how as well as equipment and, therefore, may be competitive in the China market; however, other nations offer better financing and could thereby undercut US sales.

Secret

Secret

25X1

China also will strengthen as an exporter, competing primarily with industrializing nations and with declining industries in the United States and other developed countries. Chinese competition probably will prompt calls for greater protection of US industries, guaranteed access for US firms in the China market, and assistance to compete against China in third-country markets. At the same time, China will continue to demand greater market access in the United States and balanced bilateral trade, suggesting that trade friction will be a key characteristic of US-Chinese relations through the rest of the century.

25X1

Secret

25X1

Contents

	<i>Page</i>
Scope Note	iii
Key Judgments	v
Resources: Limited Supply, Immeasurable Demand	1
The Need To Upgrade an Inadequate Infrastructure	2
Massive Transport Needs	2
Energy Shortfalls	2
Water: The Forgotten Utility	3
Inadequate Communications	3
Problems With Business Services	3
Finances: Needs Versus Realities	4
Trade: Export Promotion for Revenues	4
People Problems: Too Many Folks With Too Few Skills	4
Decisionmaking: Everybody Wants To Get Into the Act	5
The Education Gap	6
Management Shortfalls	6
Achieving Progress and Coping With Its Fallout	6
Absorbing Technology: Now That We've Got It, What Do We Do?	7
Absorbing Excess Labor: Now That We Don't Need It, What Do We Do?	7
The Price of Industrialization: Pollution Takes Many Forms	8
Turning Westward To Meet the Challenge	8

Secret

25X1

The Challenge China Faces: Identifying Resource Constraints on Economic Growth

25X1

Resources: Limited Supply, Immeasurable Demand

China has undertaken ambitious economic reforms, the scope of which is unprecedented in Chinese history (see inset). We have been surprised by the degree of success Beijing has achieved in the face of both political and economic obstacles. In our judgment, much of China's rapid growth in recent years has come as a result of both increased efficiency and fortuitous circumstances. Although the Chinese have been versatile and resourceful in coping with the obstacles to economic development, we believe that sustaining growth will become more difficult as systemic shortcomings become more limiting.

We believe China's ambition to quadruple 1980 output by the end of the century is well within reach. But we are less certain about Beijing's ability to advance toward other, more qualitative goals. Leaving aside political problems and social costs, we believe there are significant resource constraints on China's future economic growth.

China's plans for the next 15 to 20 years place competing demands on virtually every facet of the economy. The total requirement for industrial raw materials, services, skills, and financing will prove awesome. China will need such construction materials and supplies as cement, lumber, fabricated metal and pipe, glass, plumbing, and elevators—already in short supply—for new industrial and residential buildings. Factories producing high-technology goods or products with strict quality control specifications will require specialized instruments, automated equipment, and environmental monitoring and cleansing equipment to keep production facilities free of contamination. New or upgraded industries will call for reliable supplies of nonferrous metals, steel alloys, composite materials, and other substances for which China has limited capacity at best.

The Scope of Reform Objectives

The reform program engineered by Deng Xiaoping and his proteges embraces broad targets guided by Zhou Enlai's 1975 proposal to modernize industry, agriculture, science and technology, and defense. According to press and commercial sources, lower level Chinese planners, policymakers, and academics identify more discrete tasks such as:

- *Improve the standard of living:*
 - *Offer better and broader educational opportunity.*
 - *Build more and better housing.*
 - *Market more and greater varieties of food and other consumer goods.*
- *Increase the quantity and quality of industrial output:*
 - *Improve productivity and quality control.*
 - *Manage factories more effectively.*
 - *Develop industrial specialization.*
 - *Upgrade industrial technology.*
 - *Match Western production capabilities in selected goods.*
- *Earn more foreign exchange:*
 - *Expand exports.*
 - *Offer more international services.*

25X1

25X1

25X1

The Chinese, moreover, face costs—pollution, labor displacement, lifestyle changes, regional polarity, and social frictions—for which their own assessments suggest they may not be fully prepared. Further beyond Beijing's control, the strength of the world economy will influence China's trade, the willingness of foreigners to invest in China, and the availability of

25X1

Secret

EA 86-10035
August 1986

Secret

international financing. Problems—with inputs, people, and absorption—typify those facing any developing economy, but China in particular may find them daunting because of its sheer size and its ambitious timetable. Economic planners and policy makers will be especially concerned if regional disparities in growth undermine their attempts to develop nationally integrated networks of industries and services and heighten tensions between have and have-not sections of the country. []

The Need To Upgrade an Inadequate Infrastructure

Chinese planners and policymakers readily acknowledge that China's development plans are hostage to its infrastructural weaknesses. []

Massive Transport Needs. Inadequate transport facilities—especially in the highway sector—will be a key restraint to growth over the remainder of the century, restricting China's international trade as well as its domestic distribution of goods. China needs to expand its highway sector for short-haul freight, thereby freeing the overburdened rail system for long-distance requirements. Moreover, attempts to develop industrial specialization and new suburban or rural population centers—requiring timely delivery of parts and supplies—will heighten demand for dependable intercity trucking. But that will siphon petroleum products from exports and highway construction materials from other important projects. []

[] Beijing's plans for highway construction call for the provinces to assume responsibility, and the central government to fund only 20 percent or less; we believe this is a serious flaw. In the past, provinces have preferred to devote their resources to the development of industries that expand their tax base rather than to expensive but nonremunerative services. []

Inadequate inland distribution systems also will cause freight storage problems and continued port congestion, especially if Chinese traders try to quadruple trade, as Beijing plans. And although China is undertaking an extensive expansion of port facilities, continuing silt problems—which restrict port access to medium size oceangoing vessels—will exacerbate

congestion. For some products, air freight may be an alternative, but China would have to upgrade its air cargo capacity. []

Energy Shortfalls. The transport situation also will hamper China's attempts to meet energy demand; rail freight capacity is inadequate to move coal—which accounts for 40 percent of rail freight—from the mines to power plants, leaving 54 million tons (more than 5 percent of output) stockpiled at mines last year. According to press reports, transportation authorities plan to spend about \$21 billion on railroad modernization efforts over the next five years, mainly to increase coal-carrying capacity. []

Press [] also report that as much as 30 percent of China's industrial capacity is idled by shortages of electricity,² and Chinese experts estimate that, by the end of the century, demand could be twice available supplies. Chinese planners call for more coal-fired power plants at mines to reduce coal transportation requirements, new hydroelectric stations in the southwest with long-distance transmission lines to deliver electricity, and substantial increases in energy efficiency effected through replacement of antiquated power-generating and power-consuming equipment. []

We do not expect China to meet its energy goals. Coal, which now fuels 70 percent of China's electricity production, is slated only to double in output, while electric power is to quadruple. And to build the new plants and equipment needed will require staggering

25X1

25X1

25X1

25X1

25X1

25X1

25X1

25X1

25X1

Secret

Secret

investment and absorb extraordinary construction and industrial resources; in our judgment, for example, to install the necessary long-distance, high-voltage power transmission lines alone could exhaust China's copper and aluminum production. In addition, construction of new coal mines and hydropower plants should be under way if century-end targets are to be met, but, according to Embassy [] reporting, budget concerns and bureaucratic infighting are deferring projects, making those targets increasingly unattainable. []

Water: The Forgotten Utility. We believe water supplies will be another major problem for China's industrial modernization. Water availability is already a concern; the water table in many urban areas has become dangerously low, even causing subsidence in some locations—Tianjin has dropped more than six feet since 1959, according to Chinese press reports. One Chinese expert estimates that water consumption needs in 2000 will exceed 725 billion cubic meters, with a supply of only 650 billion. Without massive conservation efforts and investment in water treatment plants, China will have inadequate water to meet industry and public needs. Yet Beijing is only beginning to recognize the magnitude of the problem and to take such corrective action as encouraging local watershed management and increasing public awareness of the need for conservation. []

Inadequate Communications. China will need more and improved communications services to meet administrative, commercial, and social needs: data communications for computer networks used in state planning, transportation, energy, and other sectors; telephone and telex services to link factories, suppliers, and markets; and broadcast facilities to expand educational services. China's inadequate telecommunications services are based on largely outmoded or obsolete equipment. The increase in demand far outstrips growth in services, and that situation is unlikely to change for a long time; China is still trying to meet basic telephone service demand, for example (see inset). China's efforts to develop a fiber-optic

Telephones as Luxury Goods

China's telephone system is woefully inadequate. Switching and lines are generally archaic and, as travelers can attest, service is mediocre to poor, but the most telling and visible indicator of problems is the simple lack of telephones. Shanghai, for example, receives 5,000 requests monthly for telephones, but installs only about 17,000 per year. Nationwide, China installed 1.3 million telephones in 1981-85, or 260,000 units yearly, bringing the total inventory to 5 million. By 2000, the leadership's plan calls for 28 million new installations—a total of 33 million phones—or nearly 2 million yearly, representing a tremendous amount of equipment, money, and skilled labor that China may not be able to muster. []

25X1

25X1

25X1

network will probably improve some intercity communications, but we anticipate that problems in production and installation will prevent completion of a nationwide system within the next 10 years. []

25X1

Problems With Business Services

To facilitate the development of a modern economy, China needs to develop business services that facilitate day-to-day operations and provide a standardized system on which businessmen can rely. Beijing knows that such services are not widely available in China and that their absence slows the economy and weakens business confidence. Consequently, to enforce accountability and to assure investors of a sound business environment, China is evolving a legal framework covering contracts, investment safety, and other issues. Current laws are often vague, but Beijing is issuing clarifying regulations and new, more explicit laws as it becomes aware of needs. []

25X1

25X1

25X1

Secret

China also must further develop its insurance, computer software,⁴ engineering, product research, marketing, and other industries over the next 15 years. Because these services are not capital intensive, we do not expect them to be a major financial burden, but their shortcomings could curb risk taking, new product development, and industrial modernization, and thereby interfere with growth. In addition, they will create conflicting demand for China's technical and business graduates whose skills will also be needed in the industrial sector. []

Finances: Needs Versus Realities

A key concern for Beijing will be financing its modernization and growth, but, we believe that, unless international financial markets tighten, China should be able to find funds if it is willing to accept lenders' terms. []

[] China's cumulative investment needs for the 10-year period from 1985 to 1995 will exceed \$1 trillion, outpacing savings by some \$160 billion. In the past, China has been reluctant to turn abroad for funds because it wants to avoid dependence on foreign sources for commercial loans at nonconcessionary interest rates. However, we anticipate that its needs will force a rise in China's borrowing levels through the remainder of the century. []

[] China in 1986-90 will need \$50 billion from foreign sources to maintain planned 7-percent annual growth. Western bankers view China as a low-risk borrower and appear willing to provide considerable funding []

Trade: Export Promotion for Revenues. China also hopes to finance modernization through exports, not only of goods, but also of services. Indeed, without these sources of foreign exchange, China will be

unable to fund the technology and equipment imports it needs to upgrade industry. We anticipate that China will encounter considerable resistance as it tries to expand its role in international export and service markets over the next 15 years. Increasing protectionism in the West and a sluggish oil market are limiting export growth. The quality of many Chinese-manufactured goods—the most likely growth sector for trade—is inadequate to ensure strong sales in developed nations, and less developed countries do not have the financial resources to buy enough from China to raise export revenues significantly. China will probably earn more foreign exchange through its development of international services, which, according to the State Statistical Bureau, earned \$890 million in 1985. Beijing is pressing its merchant fleet, labor exports, overseas construction contracting, and other sectors to raise revenues. However, China's success with service exports will depend largely on the state of the world economy; for example, demand for overseas Chinese labor and construction is largely in the Middle East and has declined in reaction to falling oil prices. []

People Problems: Too Many Folks With Too Few Skills

A key factor affecting the demands that will be made on China's resources is population growth and dispersal. Beijing is pressing rural communities to establish industrial facilities that would absorb excess labor from agriculture.⁵ Planners hope that, as a result, new towns will develop and prevent unmanageable migration to already overcrowded cities. As these towns evolve into small cities, new demands will arise for energy, transportation, and services, in addition to the resource demands imposed by the development of additional industry. Moreover, although their share of the total population will drop, the number of very young and very old Chinese will rise by 2000, according to studies by the US Bureau of the Census, and the need for social services—schools, housing, medical care, food, transportation—to support the nonworking population will grow. []

⁵ Over the past several years, China rapidly developed rural industries that in 1985 accounted for two-thirds of the gross output of the rural economy. []

Secret

Secret

Clearly, one resource China does not lack is people. As a resource, however, the critical aspect is the severe shortage of talent willing and able to drive Beijing's modernization programs. But sociopolitical factors have inhibited the development of skilled decisionmakers, entrepreneurs, managers, and technicians, and the institutional framework that brings their abilities together into a smoothly functioning system. The legacies of the Cultural Revolution⁶ and the Soviet-style planning bureaucracy China adopted in the 1950s—with its overlapping responsibilities and its need for consensus before action—have slowed implementation of Beijing's plans. For example, the Three Gorges hydropower project—proposed in the early 1950s to alleviate electricity shortages—is still under debate among national, provincial, and local authorities in spite of the urgent need for power.

[REDACTED]

Decisionmaking: Everybody Wants To Get Into the Act

China's economy seems at times to function in spite of the bureaucracy that runs it, suggesting that a failure to streamline decisionmaking may inhibit but not undermine growth. Nonetheless, although markets regulate more goods each year, the central and local governments still manage huge sectors of the economy and monitor others, and the overlap in responsibilities is debilitating. For example, squabbles between the Ministry of Nuclear Industry and the Ministry of Water Resources and Electric Power over the development of China's civilian nuclear energy program have confused Western vendors and delayed progress on planned construction, perhaps by several years. But the leadership has also not been pleased with the effect of market forces without central guidance; in 1984 Beijing decentralized trade and encouraged exports, but the resultant competition among new trading firms drove Chinese export prices down, forcing the government to restore some controls. [REDACTED]

⁶ The Cultural Revolution (1966-76) featured violent repudiation of education and technical competence. Bureaucrats, factory managers, academics, and technicians alike were persecuted. At least a full decade of training and development was lost. Moreover, some individuals affected by the torment of that period have been reluctant to embrace the new leadership's reform program for fear of another retrenchment. [REDACTED]

Beijing has begun appointing so-called Leading Groups to bring together the involved bureaucracies and develop cohesive policies. We are skeptical that Leading Groups will solve the problem, however. To date, a variety of Leading Groups have emerged to oversee such issues as energy demand and supply and science and technology policy. But the memberships often feature the same leaders, suggesting that some key figures are involved in too many bodies to be effective. Moreover, the proliferation of Leading Groups suggests that they may be better at highlighting problems than at implementing solutions and may, in fact, be little more than an added layer of bureaucracy. Indeed, some groups do not include all of the actors necessary to be effective. For example, the group for electronics development does not include representatives from Shanghai, the site of important electronics industries and a major competitor with the rest of the country for electronics resources and imported technology. [REDACTED]

25X1

25X1

Another mechanism introduced to improve industrial management and decisionmaking is horizontal integration—the breakup of fully self-reliant factories into independent producers of parts, subassemblies, and finished goods to increase specialization, efficiency, and quality control. Chinese academics writing over the past two years have criticized vertical decisionmaking as a top-down command system that functions without regard to needs, resources, or abilities. On the other hand, supporters of horizontal integration say it permits factories to assess demand and determine output; encourages industry and researchers to work together to develop new products; and limits government resource management to issues too large or commodities too scarce for independent market methods to satisfy national needs. In our judgment, however, the introduction of horizontal management is premature; the transportation and communications systems are not prepared to support the added burden; and most Chinese factory managers lack the skill to analyze markets and make production decisions on the basis of their analysis. For example, a recent Embassy report of a Chinese

25X1

25X1

Secret

industrial survey suggests that some manufacturers of finished goods have pared output in response to lower demand, but that parts suppliers have not, resulting in costly and wasteful inventory buildups. []

The Education Gap

A more critical shortcoming of China's program is education. Beijing only recently mandated nine years of education for all Chinese. But press articles and other public sources suggest that reform programs, especially in rural areas, may have resulted in a shorter average education because families prefer to have their children in the fields or shops helping to earn a living. []

According to a study by the World Bank, China's advanced education programs tend to focus on narrow applications, with few institutions offering liberal arts programs. On the face of it, that should be helpful in filling China's need for specialists and technicians. But China also needs people who are more broadly educated, who can think abstractly, who have foresight and can plan projects and see them to fruition, and who can become the industrial and political leaders of tomorrow. Western observers see a generation of leaders in their seventies and eighties now passing the torch to men and women in their fifties. The follow-on generation of 30-to-40-year-olds were scarred by the Cultural Revolution, however, and, though we are unsure of the long-run impact, the disruption in their educations certainly undercut their opportunities to develop qualifications for positions that could put them in contention for future leadership roles. []

Management Shortfalls

If—as Beijing expects—initiative, innovation, and profit motivation are to be important sources of economic growth and development, then China has a formidable chore ahead retraining managers for its 400,000-plus enterprises and bureaucracies. China's needs are wide ranging, from a consistent accounting system to new attitudes. For example, many Western observers expect China—because of its centralized economy—to have a well-developed statistical system for reporting production and imposing quotas. But management instructors at the Dalian Training School, a US-backed joint program to train Chinese

factory managers in Western techniques, have found their Chinese students unable to conceptualize balance sheets, production costs, depreciation, and other standard accounting methods. Beijing apparently has accepted the need to adopt at least some Western accounting practices; a recent press article announced that China would attempt to train 10,000 certified accountants by the end of the century. The article failed to note, however, that China lacks procedures as well as personnel. []

To professionalize its industrial leadership, China has imposed new requirements for factory managers, including courses and examinations. But a key element in successful industrial reforms will be much more difficult to achieve. In our judgment, Beijing must determine—and probably redefine—the role of the factory, and that will require some major changes of attitudes:

- Plant managers once considered successful for meeting quantitative goals must adjust to new criteria demanding quality, innovation, marketing skills, and profits.
- Although reforms have nominally reduced the role of the party, the central authority at many enterprises is still the party secretary, and key decisions are still based on party line rather than on the factory's business environment.
- Enterprises will have to consider trimming their work forces—[] employment levels of three to five times what would be necessary to run an enterprise efficiently. []

Achieving Progress and Coping With Its Fallout

Implementing reforms has been and will continue to be awkward for Beijing because the results—sometimes unanticipated—pose philosophical as well as practical dilemmas. The introduction of such reforms as free markets for some goods, for example, evoked Western claims that China was adopting capitalism,

25X1

25X1

25X1

25X1
25X1
25X1**Secret**

Secret

***The Sociopolitical Role of the Factory:
Another Constraint?***

Factories in China have considerable responsibilities beyond simple production of goods. They provide employees with a full range of social services such as housing, medical care, and child care. Because factories generally do not fire unneeded employees, they provide a de facto social security system as well. According to Embassy reporting, Beijing will begin this summer to introduce a social safety net including retirement and unemployment benefits that will relieve factories of some of the burden. However, to improve efficiency over the next several years, factories also may press the government to assume more of its other social roles as well. []

Redefining the functions of factories may change their political role as well, which may cause tension between factory management and party officials. The party has long been involved in factory management and used meetings of the work force to foster and enforce party policies. Beijing has called for a lower party profile at the factory level, however, to permit economic forces to drive decisionmaking. But because party officials may view their role at the enterprise level as their main source of power, we expect that diminution of that role would cause friction. []

claims that Beijing found embarrassing. The leadership is sometimes hardpressed to justify its policies within the framework of its political heritage. "Socialism with Chinese characteristics" has been only murkily defined, leaving vague the role of traditional Communist or socialist institutions such as the party, the planning process, and state-set prices. The practical issues—technology absorption, unemployment, and social and resource pollution—however, could undo much of the progress China has made. []

At the core of many of these reported inadequacies are a lack of training for labor and management and weaknesses in the industrial structure—both long-term concerns. []
[] a disproportionately large share of Chinese are

trained not by vocational schools but by their factories, where they are given very narrow instruction on particular tasks, with no attempt to promote understanding of their jobs in the context of the whole product or the factory's production to instill pride and motivation. Without these, we doubt that Chinese workers will have the ability to understand new technologies, and, thus, absorptive capacity will continue to be weak. []

Absorbing Technology: Now That We've Got it, What Do We Do?

Statements by Chinese officials []
[] make clear that
China has deep-rooted problems using advanced equipment and technology in civilian applications. Stories of poorly maintained, incorrectly operated, or idle imported machinery are legion; []

[] Beijing is aware—as indicated by official press articles calling for improvement—that technology absorption is one of the most critical challenges China faces. Until workers can use modern technologies effectively, we believe—on the basis of the experiences of other developing nations—that China's economic modernization plans will be hampered. []

Absorbing Excess Labor: Now That We Don't Need It, What Do We Do?

And if China successfully introduces advanced technologies and more efficient machinery, what happens to displaced unskilled and semiskilled laborers? The Chinese acknowledge that unemployment is an issue in large urban areas such as Shanghai, where rising crime is frequently attributed to street gangs of jobless youths. According to the US Census Bureau, at least 10 million jobs must be created annually through 2000. Moreover, the Census Bureau has identified a striking discrepancy between Beijing's planning for urban population growth and for urban employment, with jobseekers far outnumbering job creation. []

Secret

Secret

According to China's State Statistical Bureau, at yearend 1984 China had 3.5 million persons "awaiting employment." More than 63 million worked in industry, of whom nearly one-third were in the machine-building sector, where underemployment is reported to be high. [redacted]

[redacted] unemployment and underemployment in machine building is growing rapidly because factories are having trouble developing new markets. [redacted]

[redacted] 1.5 million defense workers have been put on half pay because their factories cannot adjust to new demands to produce civilian goods. Taking all these factors into consideration, we expect that unemployment and underemployment will be a major concern for Beijing over the next 15 years and that this could be a disruptive social issue.

[redacted]

The Price of Industrialization: Pollution Takes Many Forms

China's campaign against spiritual pollution⁷ reflected the leadership's somewhat schizophrenic attitudes toward the balance of Western and socialist influences, and greater involvement in the international economy will heighten the tension. Environmental pollution will be of greater importance to industry, however. Already short of water, China persists in managing its water supplies cavalierly, dumping unprocessed human and industrial wastes indiscriminately. Beijing is becoming more aware of the problem; a recent *China Daily* article, for example, urged purification of industrial waste water and domestic sewage for reuse and protection of water resources from pollution. But we have no evidence that Beijing has established a policy on water use and pollution or has tried to protect industrial and drinking water. We believe China's water resources will become an alarming social and economic issue by the end of the century—and probably earlier—and that Beijing will have to begin construction of water treatment plants on a massive scale. [redacted]

⁷ Building on remarks made by Deng Xiaoping in September 1983, conservative party propagandists initiated the anti-spiritual-pollution campaign, ostensibly to attack corrosive aspects of Western "bourgeois" culture. As it gained momentum in late 1983, conservatives used the campaign to criticize elements of Deng's reform program. Alarmed at this development, Deng cut off the campaign in early 1984, silencing conservative critics and at least temporarily forbidding the use of the term "spiritual pollution" in the official media. The episode demonstrates the continuing volatility of the issue of foreign cultural encroachment. [redacted]

Air pollution will similarly test Beijing's ability to marshal resources to treat a major national problem. In spite of China's best efforts to diversify energy sources, coal will continue to be the primary fuel for industry. Conversion of urban households to gas, if accomplished, would stanch a major source of air pollution, but power plants and industry would continue to belch smoke. Diplomats [redacted] who have lived in Chinese cities, especially Beijing, speculate that winter air 10 years from now will be all but unbreathable, indeed nearly solid with particulates, if action is not taken now. Chinese officials, though they acknowledge the problem, have done little. Some factories are experimenting with solutions. [redacted] certain factories have installed water and exhaust filtration systems. Because Beijing's industrial policies often evolve from the actions of advanced factories, we believe Beijing may within the next few years laud these enterprises and press others to emulate them. [redacted]

25X1
25X1
25X1
25X1
25X1
25X1
25X1
25X1
25X1

Turning Westward To Meet the Challenge

At present, our best guess is that Beijing will muddle through the next 15 years using a crisis management approach to ameliorate—but not eliminate—major bottlenecks as they threaten to hobble the economy. We believe, however, that Beijing will remain committed to reform and will turn increasingly outward for solutions, seeking technological, managerial, and financial assistance from the West. [redacted]

25X1

Clearly, China's development plans leave no sector untouched, offering many commercial opportunities for US and other Western firms, as well as openings for cooperation on a government-to-government basis. In fact, we believe that China must become further integrated into the world economy for its modernization program to work, and that imports of technology and materials as well as massive foreign credit will be necessary. [redacted]

25X1
25X1

US firms could be of critical importance to China if they can gain and take advantage of market access. In particular, US firms have high potential for commercial links in energy—including coal, oil, hydropower,

25X1

Secret

Secret

power transmission, and conservation; satellite and fiber-optic communications systems; transportation systems and such sectors as road building; pollution control systems; quality control systems, electronics equipment and software, and new building materials. China also could use US expertise in such services as insurance and accounting. Finally, US firms could assist China in developing packaging and promotion for increasing exports. []

The United States now competes primarily with Japan and West Germany for sales of capital goods to China. To date, according to industry and diplomatic reports, US firms have been more willing to offer China production technology as well as equipment, thereby helping the Chinese purchaser to develop production capacity. Some nations— [] have been reluctant to do so for fear of creating competition for their own industries. However, [] others offer low-cost financing for many comparable or superior technologies, thus undercutting US competitiveness. Moreover, as the turn of the century approaches, greater competition will come from West European nations, Brazil, South Korea, and other countries now emerging as international economic players. If the United States can assure its firms of equal opportunity in the Chinese market, then we believe that many US firms could continue to profit from China's development plans. []

Beijing also will probably look to the West to provide more low-cost financing than will be available. Those countries that can provide concessionary financing to back their exporters will be in a favorable competitive posture; those offering development loans at low interest rates will similarly benefit, especially if the loans require the recipient to buy that country's products for the development project. Because China's thirst for low-cost financing and for imports that require little expenditure of foreign exchange is

seemingly limitless, we expect to see increasing use of unconventional financing methods and compensation trade to enter and remain in China's markets. []

At the same time, as the Chinese economy strengthens, we envision China's becoming a market force competitive primarily with today's industrializing nations—Brazil, Taiwan, South Korea, for example—and posing a threat to firms in declining US industries, such as furniture, metal products, and consumer electronics. The result will be new demands by US industry for protection from less expensive imports. Moreover, China hopes to increase substantially exports of agricultural and other products that would compete directly with US goods in third-country markets. US policymakers can expect, then, continued conflicting demands from exporting industries that want guaranteed access to the Chinese market, exporting industries that want assistance to compete against China in other markets, and domestic industries that want to prevent Chinese access to the US market. In addition, China will continue to demand market access and a bilateral trade balance, suggesting that trade friction will be a key characteristic of US-Chinese relations at the turn of the century. []

25X1

25X1

25X6

25X6

25X6

25X1

25X1

25X1

Secret

Secret

Secret